MODEL 35QU

RCA VICTOR

RADIO PHONOGRAPH COMBINATION

Model 35QU

SERVICE DATA

—1953 No. 20—

HOME INSTRUMENT SERVICE DIVISION
RCA VICTOR COMPANY, LTD
MONTREAL, CANADA

ELECTRICAL AND MECHANICAL SPECIFICATIONS

Tuning Ranges

Standard Broadcast ("A" Band)..520-1605 kc. (576-186 m.)
Medium Wave ("B" Band).....2.3-7 mc. (131-42.8 m.)
Short Wave ("C" Band).....7.0-22 mc. (42.8-13.7 m.)

Intermediate Frequency.....455 kc.

Tube Complement

(1) RCA-12BE6.....Converter
(2) RCA-6BJ6.....I. F. Amplifier
(3) RCA-12AV6.....Det.-A.V.C.-A.F. Amp.
(4) RCA-50L6GT.....Output
(5) RCA-35W4.....Rectifier

Loudspeaker

Size and Type.....6½" (16 cm.) P.M.
V.C. Impedance.....3.2 ohms at 400 cycles

Power Output

Undistorted.....1.0 watt
Maximum.....1.8 watt

Power Supply

1. 105-125 v. 60 cycles A.C.....50 watts
2. 210-250 v. 60 cycles A.C.....55 watts
3. 105-125 v. 25 cycles A.C.....55 watts

RECORD CHANGER ----------124196 Series

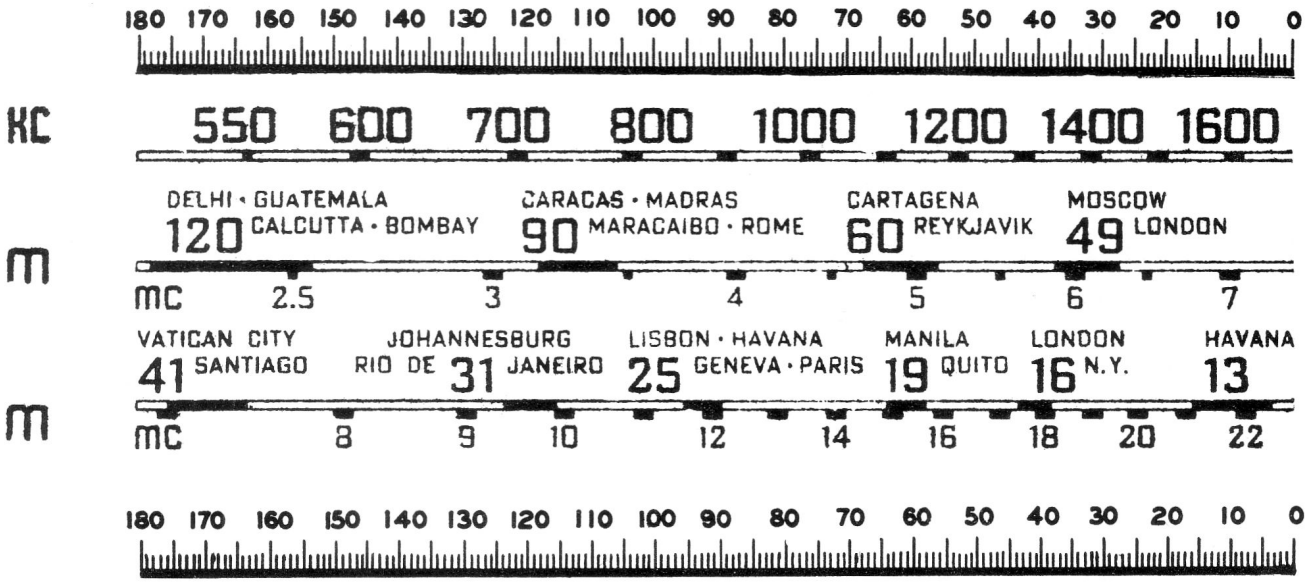
Turntable Speed ----------33⅓, 45 or 78 r.p.m.

Record capacity ----------Up to 14-seven inch
or 12-ten inch
or 10-twelve inch
10-ten and twelve inch intermixed

Tuning Drive Ratio.....14:1 (7 turns of knob)

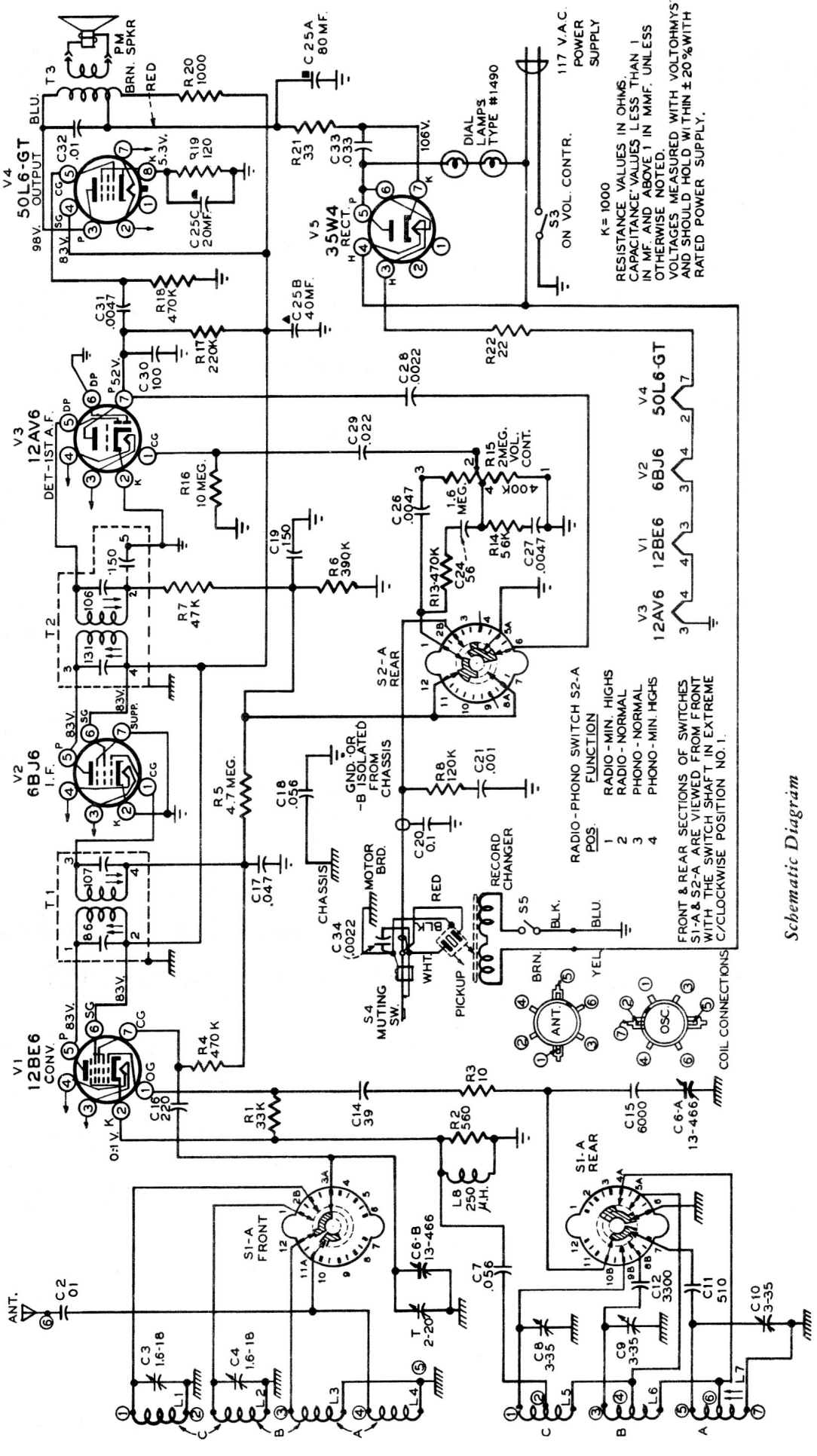
Cabinet Dimensions (overall)

Height.....10⅝"
Width.....16 9/16"
Depth.....22½"

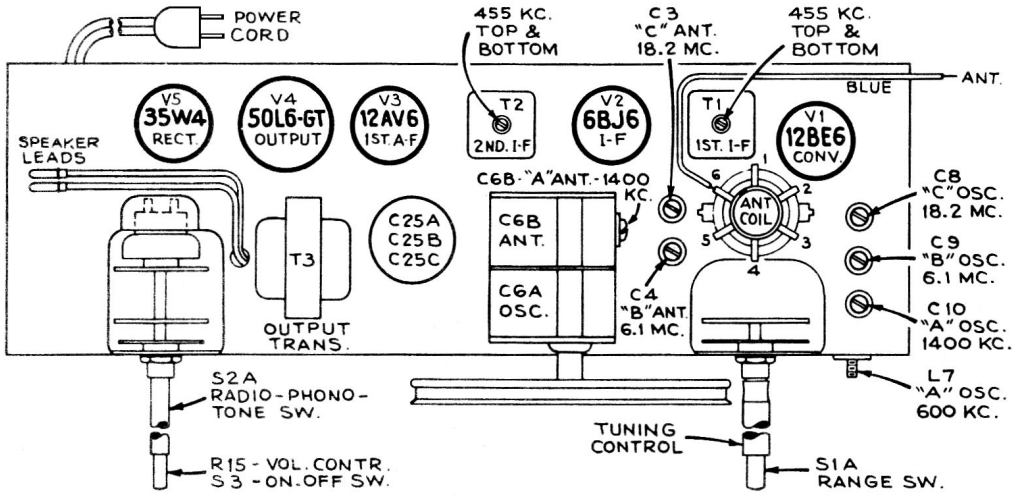


Reduced Reproduction of Receiver Dial Scale and Corresponding 0-180° Calibration Scales

The corresponding position of the dial indicator for any setting of the calibration scale can be determined by drawing a line from this point on the bottom calibration scale to the same point on the top calibration scale. For example: 145° on the calibration scale corresponds to approximately 600 kc on "A" band, etc. Read instructions under "Alignment Procedures."



Schematic Diagram



Tube and Trimmer Locations

Alignment Procedure

Test-Oscillator—For all alignment operations, connect the low side of the test-oscillator to the receiver chassis, and keep the oscillator output low to avoid a-v-c action.

Note: If the test-oscillator is a-c operated, it may be necessary to use an isolation transformer (117v./117v.) for the receiver during alignment and connect the low side of the test-oscillator to common wiring—reversal of the plug may reduce hum.

Calibration Scale on Indicator-Drive-Cord Drum—The tuning dial is fastened in the cabinet and cannot be used for reference during alignment, therefore a calibration scale is attached to the indicator-drive-cord drum which is mounted on the shaft of the gang condenser. The setting of the gang condenser is read on this scale, which is calibrated in degrees.

As the first step in r-f alignment, check the position of the drum. The "180°" mark on the drum scale must be vertical and directly over the center of the gang-condenser shaft when the plates are fully meshed.

Pointer for Calibration Scale—Improvise a pointer for the calibration scale by fastening a piece of wire to the gang-condenser frame, and bend the wire so that it points to the "180°" mark on the calibration scale when the plates are fully meshed. The correct setting of the gang in degrees, for each alignment frequency, is given in the alignment table.

Dial-Indicator Adjustment—After fastening the chassis in the cabinet, attach the dial indicator to the drive cable with indicator at the end calibration mark, and gang condenser fully meshed. The indicator has a clip for attachment to the cable.

Step	Connect high side of test osc. to—	Tune test osc. to—	Range switch	Turn radio dial to—	Adjust for max. output
1	6BJ6 grid (Pin No. 1) in series with .01 mf	455 kc	A	Quiet point near 600 kc	T-2 top and bottom
2	12BE6 grid (in No. 7) Pin series with .01 mf				T-1* top and bottom
3	Antenna lead in series with 220 mmf	1400 kc	A	1400 kc 30°	C10 osc. C6-B ant.
4		600 kc		600 kc 145°	L7 osc. (rock gang)
5		Repeat steps 3 and 4			
6	Antenna lead in series with 300 ohms	6.1 mc	B	6.1 mc 30.5°	C9 osc.† C4 ant.
7		18.2 mc	C	18.2 mc 36°	C8 osc.† C3 ant.‡

* Do not readjust T-2.

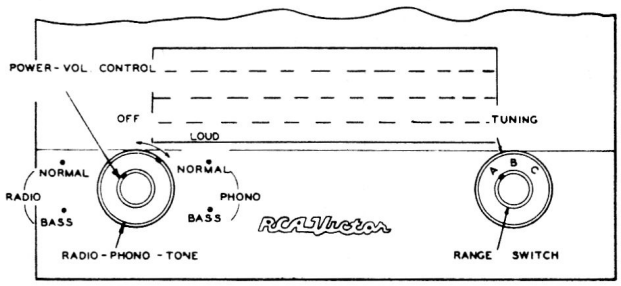
† If two peaks are found—adjust at minimum capacity peak.

‡ Rock gang while adjusting—use maximum capacity peak.

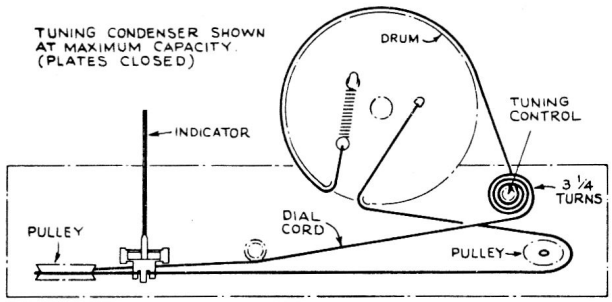
NOTE: Oscillator tracks above signal on all bands.

Critical Lead Dress

1. Dress C2 away from antenna coil windings.
2. Keep body of C15 away from chassis base.
3. All wires from the antenna and oscillator coils to the band switch are critical for length and should not be changed.
4. Dress any slack in lead from oscillator coil (C band secondary terminal) toward end of chassis.
5. Dress (C14-R3) away from chassis base.
6. Dress output plate lead next to chassis keeping it under −B and +B leads.
7. Dress phono cable under C29.
8. Dress R20 next to rear chassis apron.



Radio Controls



Dial-Indicator and Drive Mechanism

REPLACEMENT PARTS

STOCK No.	DESCRIPTION
	CHASSIS ASSEMBLY
S-6032	Bracket—Dial cord pulley bracket complete with one large pulley (left)
S-6033	Bracket—Dial cord pulley bracket complete with one large pulley (right)
	Fixed Capacitors:
S-6634	Ceramic, 56 mmf (C24)
S-6635	Ceramic, 100 mmf (C30)
S-6636	Ceramic, 150 mmf (C19)
S-6637	Ceramic, 220 mmf (C16)
S-6300	Mica, 510 mmf (C11)
S-4441	Mica, 3300 mmf (C12)
S-4442	Mica, 6000 mmf (C15)
S-6638	Molded paper, .001 mf, 600v. (C21)
S-4607	Molded paper, .0022 mf, 600v. (C28)
S-4443	Molded paper, .0047 mf, 600v. (C26, C31)
S-5469	Molded paper, .0047 mf, 600v. (C27)
S-6326	Ceramic, .01 mf. (C2)
S-4609	Molded paper, .01 mf, 600v. (C32)
S-4732	Molded paper, .022 mf, 400v. (C29)
S-6639	Molded paper, .033 mf, 1000v. (C33)
S-4448	Molded paper, .047 mf, 200v. (C17)
S-4449	Molded paper, .056 mf, 400v. (C7, C18)
S-4634	Molded paper, .1 mf, 400v. (C20)
S-4452	Electrolytic, 30 mf and 40 mf at 150v. and 20 mf at 25v. (C25A, C25B, C25C)
S-4450	Capacitor—Trimmer capacitor, two sections of 1.6—18 mmf (C3, C4)
S-4516	Capacitor—Trimmer capacitor, three sections of 3-35 mmf (C8, C9, C10)
S-6640	Capacitor—Variable tuning capacitor (C6-A, C6-B)
S-4453	Capacitor and Resistor—Assembly comprising 39 mmf capacitor and 10 ohm resistor (C14, R3)
S-4454	Clip—Mounting clip for I-F transformers
S-6641	Coil—"A-B-C" bands antenna coil (L1, L2, L3, L4)
S-6642	Coil—"A-B-C" bands oscillator coil (L5, L6, L7)
S-4457	Coil and Resistor—Assembly comprising 250 microhenry coil and 560 ohm resistor (L8, R2)
S-6643	Control—Volume control and tone switch (R15, S2-A)
S-4458	Cord—Tuning drive cord (approx. 49 inches required)
S-5463	Cord—Power line attachment cord
S-6311	Core—Adjustable core for oscillator coil
S-4464	Grommet—Rubber grommet for tuning capacitor mounting (3 req'd)
S-4466	Insulation—Insulating plate for mounting electrolytic capacitor
S-6316	Nut—Speed nut for mounting of oscillator adjustable core.
	Resistors—Fixed, composition:
S-6644	22 ohms, 1 watt (R22)
S-6645	33 ohms, 1 watt (R21)
S-6646	120 ohms, ½ watt (R19)
S-6647	1000 ohms, 1 watt (R20)
S-6648	33,000 ohms, ½ watt (R1)
S-6392	47,000 ohms, ½ watt (R7)
S-6649	56,000 ohms, ½ watt (R14)
S-6396	120,000 ohms, ½ watt (R8)
S-6650	220,000 ohms, ½ watt (R17)
S-4624	390,000 ohms, ½ watt (R6)
S-4476	470,000 ohms, ½ watt (R4, R18)
S-6479	470,000 ohms, ½ watt (R13)
S-4478	4.7 megohm, ½ watt (R5)
S-5517	10 megohm, ½ watt (R16)
S-6651	Sleeve—Tuning control sleeve
S-4483	Socket—Tube socket—octal—for 50L6GT tube
S-6322	Socket—Tube socket—miniature for 12BE6 tube
S-6652	Socket—Tube socket—miniature for 6BJ6, 12AV6 and 35W4 tubes
S-6037	Socket—Dial lamp socket and lead assembly
S-5710	Spacer—Metal spacer for tuning condenser mounting (3 req'd)
S-4485	Spring—Tension spring for tuning drive cord
S-6653	Switch—Tuning range switch (S1-A, S1-B)
S-4487	Transformer—First I-F transformer (T1)
S-4488	Transformer—Second I-F transformer (T2)
S-6654	Transformer—Output transformer (T3)
S-6179	Washer—"C" washer to retain tuning control sleeve
	SPEAKER ASSEMBLY
S-6046	Cone—Cone and voice coil assembly
S-6662	Speaker—6½ inch P.M. speaker complete with cone and voice coil.
	MISCELLANEOUS
S-6655	Capacitor—Molded paper, .0022 mf, 1000v. (C34)
S-5734	Decal—"Victrola" decal
S-6656	Decal—Control function decal for front of cabinet (1 set)
S-6657	Dial—Plastic dial scale
S-6665	Emblem—"RCA Victor" emblem
S-5735	Foot—Rubber foot for cabinet (4 req'd)
S-4502	Grommet—Rubber grommet for chassis mounting (4 req'd)
S-6043	Grommet—Rubber grommet for speaker mounting (4 req'd)
S-6658	Hinge—Cabinet lid hinge (2 req'd)
S-6044	Indicator—Station indicating pointer
S-6511	Knob—Radio-Phono switch control knob for walnut finish instruments
S-6512	Knob—Radio-Phono switch control knob for oak finish instruments
74963	Knob—Volume control and on-off switch knob for walnut finish instruments
S-9206	Knob—Volume control and on-off switch knob for oak finish instruments
74959	Knob—Tuning control knob for walnut finish instruments
S-9204	Knob—Tuning control knob for oak finish instruments
S-6513	Knob—Range switch control knob for walnut finish instruments
S-6514	Knob—Range switch control knob for oak finish instruments
S-4508	Lamp—Dial lamp—Mazda type #1490 (2 req'd)
S-6659	Spacer—Metal spacer for chassis mounting (4 req'd)
S-6530	Spacer—Metal spacer for speaker mounting (4 req'd)
S-5744	Stud—Internal thread stud for mounting lid hinge (8 req'd)
S-4659	Support—Cabinet lid support
S-6661	Transformer—234/117v. 50-60 cycle step-down transformer

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